

original Claims 2, 7 and 9. Applicants respectfully submit that no new matter has been added to the subject application nor have any new issues been raised by this amendment. Moreover, it is submitted that the claims as now presented place the subject application in condition for immediate allowance.

The Examiner has rejected Claims 1-16 under the first paragraph of 35 U.S.C. §112 as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner alleges that applicants have failed to clearly define exactly what is meant by the recitation "substantially linear isocyanate-terminated polyurethane prepolymer." This rejection is respectfully traversed.

Applicants submit that the claimed recitation "substantially linear isocyanate-terminated polyurethane prepolymer" is described in the specification. It is well established that even if every nuance of the claims is not explicitly described in the specification, the adequate written description requirement is met if a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing. *In re Alton*, 37 USPQ2d 1578, 1584 (CAFC 1996). The specification would allow one skilled in the art to understand that the claimed recitation "substantially linear isocyanate-terminated polyurethane prepolymer" is obtained from the reaction product which is formed when an excess of a difunctional organic diisocyanate monomer is reacted with a difunctional polyol (see page 3, lines 9-13). First, the specification sets forth examples of the different components that can be

used for the difunctional organic diisocyanate monomer and difunctional polyol to form the substantially linear isocyanate-terminated polyurethane prepolymer (see page 3, line 14 through page 4, line 23). Second, the specification sets forth how the substantially linear isocyanate-terminated polyurethane prepolymer can be prepared (see page 4, line 24 through page 5, line 3). Finally, the specification provides working examples stating the desired components and amounts under which the claimed substantially linear isocyanate-terminated polyurethane prepolymer is obtained. Thus, the claimed substantially linear isocyanate-terminated polyurethane prepolymer can be found within the specification as filed to allow one skilled in the art to believe that applicants were in possession of the claimed subject matter as of the filing date. Such being the case, the claimed substantially linear isocyanate-terminated polyurethane prepolymer as presently recited in Claims 1-16 is believed to be fully supported as to comply with the requirement for the first paragraph of 35 U.S.C. §112.

The Examiner has rejected Claims 1-16 under the second paragraph of 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Examiner alleges that it is unclear how “substantially” modifies “linear”. Additionally, the Examiner alleges that the use of the term “about” within the language “less than about 250” renders the claim indefinite because the term “about” encompasses values slightly above 250 and therefore it is unclear if the express “less than about 250” actually encompasses values of 250 or slightly above. This rejection is respectfully traversed.

A search of the Patent Office's database reveals that the claims of 5,261 patents issued since 1976 include the phrase "substantially linear" and that the claims of 36,735 patents issued since 1976 include the phrase "less than about" (See attached printout). Based on the widespread acceptance of these phrases in over 5,000 and 36,000 *issued* patents, respectively, the statement in the Office Action that these phrases render Claims 1-16 indefinite is unfounded and this basis of rejection should be withdrawn.

The Examiner has rejected Claims 2-4 under the second paragraph of 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Examiner alleges that it is unclear as to what range of thickness is denoted by the term "thin" since this term is subjective. Claim 2 has been amended in a manner believed to obviate this rejection. Accordingly, withdrawal of the rejection of Claims 2-4 under the second paragraph of 35 U.S.C. §112 is respectfully requested.

The Examiner has rejected Claim 7 under the second paragraph of 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Examiner alleges that it is unclear how "tetramethylene ether glycol" differs from "polytetramethylene ether glycol". Claim 7 has been amended in a manner believed to obviate this rejection. Accordingly, withdrawal of the rejection of Claim 7 under the second paragraph of 35 U.S.C. §112 is respectfully requested.

The Examiner has rejected Claim 9 under the second paragraph of 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Examiner alleges Resorcinol has been spelled incorrectly. Claim 9 has been amended in a manner believed to obviate this rejection. Accordingly, withdrawal of the rejection of Claim 9 under the second paragraph of 35 U.S.C. §112 is respectfully requested.

The Examiner in Paragraph 7 questions whether any diamine is present when the claimed quantity of diol is 100 percent. Applicants respectfully submit that the curative agent can be formed from a diol and a diamine. When forming the curative agent, the diamine can be present in an amount from 0 to 5 weight percent based on the total weight of the curative agent. Thus, when the amount of diol is 100 percent, the amount of curative agent is zero (0).

The Examiner has rejected Claims 1-16 under 35 U.S.C. §103(a) as being obvious over Okazaki et al. U.S. Patent No. 3,899,623 ("Okazaki") or Koyama et al. U.S. Patent No. 5,436,399 ("Koyama") in view of Gajewski U.S. Patent No. 5,895,689 ("Gajewski '689") or Gajewski U.S. Patent No. 5,895,806 ("Gajewski '806") or Ruprecht et al., "Roll Covering by Rotational Casting with Fast-Reacting PUR Systems", Polyurethanes World Congress 1991 (Sep. 24-26) pp. 478-481 ("Ruprecht"). This rejection is respectfully traversed.

Nowhere does Okazaki or Koyama disclose or suggest a method for coating a flexible substrate which comprises "rotationally casting to the substrate a coating comprising a polyurethane composition formed from (a) a substantially linear isocyanate-terminated

polyurethane prepolymer; and, (b) a curative agent containing a diol having a molecular weight of less than about 250" as presently recited in Claim 1.

Rather, both Okazaki and Koyama disclose a polyurethane coating composition formed from an isocyanate-terminated prepolymer and a diol chain extender, e.g., 1,4-butane diol. Okazaki and Koyama further disclose that an impregnated sheet, e.g., synthetic leather, can be coated with the polyurethane coating composition. Nothing in Okazaki or Koyama remotely suggests any coating method for coating the polyurethane composition onto a flexible substrate, let alone the step of rotationally casting the polyurethane composition onto a flexible substrate. In fact, this is even acknowledged by the Examiner in the Office Action.

Gajewski '689, Gajewski '806 and Ruprecht each fail to cure the deficiencies of Okazaki and Koyama. Specifically, Gajewski '689, Gajewski '806 and Ruprecht likewise fail to teach or suggest the step of rotationally casting the polyurethane coating composition to a flexible substrate of Claim 1. Rather, Gajewski '689 and Gajewski '806 disclose a rotational casting method for coating rigid substrates, e.g., a cylindrical object, employing a polyurethane composition containing dual thixotropic agents while Ruprecht discloses a rotational casting method also for rigid substrates, e.g., roll coverings, using fast-reacting polyurethane elastomer systems. Certainly no part of the Gajewski '689, Gajewski '806 or Ruprecht disclosures would encourage or motivate one skilled in the art to rotationally cast a polyurethane coating onto a flexible substrate. Thus, nothing in Gajewski '689, Gajewski '806 or Ruprecht would lead one

skilled in the art to modify the rotational casting method for rigid substrates to arrive at the presently claimed step of rotationally casting a polyurethane composition to a flexible substrate.

Accordingly, since Okazaki or Koyama, alone or in combination with Gajewski '689, Gajewski '806 or Ruprecht, do not teach or suggest the step of rotationally casting the polyurethane coating composition to a flexible substrate of Claim 1, amended Claims 1-16 are believed to be nonobvious, and therefore patent, over Okazaki, Koyama, Gajewski '689, Gajewski '806 and Ruprecht no matter how these references are considered or combined.

For the foregoing reasons, it is submitted that amended Claims 1-16 as presented herein are in condition for immediate allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,



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## APPENDIX A

2. (Amended) The method of Claim 1 wherein the flexible substrate is a fabric, a foam or a [thin] metal sheet.

7. (Amended) The method of Claim 1 wherein the substantially linear isocyanate-terminated polyurethane prepolymer is a reaction product of an organic diisocyanate monomer and a polyol selected from the group consisting of ethylene glycol, diethylene glycol, [tetramethylene ether glycol,] 1,2-propylene glycol, 1,3-propane diol, 1,4-butylene glycol, polytetramethylene ether glycol (PTMEG), polycarbonate and a dihydroxy polyester.

9. (Amended) The method of Claim 1 wherein the diol is selected from the group consisting of ethylene glycol, 1,2-propylene glycol, 1,3-propanediol, 1,3-butylene glycol, 1,4-butanediol, 2-methyl-1,3-propanediol, 1,5-pentanediol, neopentyl glycol, 1,6-hexanediol, 2-ethyl-2-propyl-1,3-propanediol, cyclohexyldimethanol, cyclohexanediol, hydroquinone di(betahydroxyethyl)ether, and [resorcinor di(betahydroxy)ethyl ether] resorcinol di(betahydroxy)ethyl ether.